

THE UNIVERD SHAYES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME;

Brotherton Seed Co., Inc.

MICCERS, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITIORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT ED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

PEA

'Feisty'

In Testimonn Marrest, I have hereunto set my hand and caused the seal of the Hant Antiety Protection Office to be affixed at the City of Washington, D.C. this fifteenth day of June, in the year two thousand and seven.

Allert

QCm Zelu

Commissioner Plant Variety Protection Office Agricultural Marketing Service cretary of Agriculture

REPRODUCE LOCALLY, include form number and de	te on ali reprodu	ıctions		Form Approved - OMB No. 0581-0055					
U.S. DEPARTMEN AGRICULTURAL N SCIENCE AND TECHNOLOGY - PI	ARKETING SER	VICE		The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.					
APPLICATION FOR PLANT VAI (instructions and information col	NETY PROTECTI ection burden state	ION CERTIFICATE tement on reverse)	â	Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).					
1. NAME OF OWNER			2.	TEMPORARY DESIGNATION OR 3. VARIETY NAME EXPERIMENTAL NAME					
Brotherton Seed Co., Inc.				FR 678	FEISTY				
4. ADDRESS (Street and No., or R.F.D. No., City,	State, and ZIP Co	de, and Country)	5.	TELEPHONE (include area code)	FOR OFFICIAL USE ONLY				
451 S. Milwaukee Avenue				(509) 765-1816 PVPO (CM) (509) 765-1816					
PO Box 1136 Moses Lake, WA 98837			6.	FAX (include area code)	1				
			((509) 765-1817	FILING DATE				
7. IF THE OWNER NAMED IS NOT A "PERSON", ORGANIZATION (corporation, partnership, associated associa	SIVE FORM OF	8. IF INCORPORATED, GIVE STATE OF INCORPORATIO		DATE OF INCORPORATION					
Corporation	,,	WA		February 1, 1955	DECEMBER 27, 2004				
10. NAME AND ADDRESS OF OWNER REPRESE Jerome Brotherton PO Box 1136 Moses Lake, WA 98837	NTATIVE(S) TO S	L SERVE IN THIS APPLICATION. (FI	rst perso	n listed will receive all papers)	F FILING AND EXAMINATION FEES: S 3, 652.00 R DATE 12 27/04 C CERTIFICATION FEE: S 768. C E DATE D DATE D DATE 06/04/2007				
11. TELEPHONE (Include area code)	12. FAX (Includ		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	13. E-MAIL	The state of the s				
(509) 765-1816 14. CROP KIND (Common Name)	(509) 765 16. FAMILY NA			info@brothertonseed.com 18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL)					
Pea	Leguminosa			YES NO	INVANT TRANSGENES? (OPTIONAL)				
15. GENUS AND SPECIES NAME OF CROP	17. IS THE VAR	RIETY A FIRST GENERATION HY	BRID?		SSIGNED USDA-APHIS REFERENCE NUMBER FOR THE DEREGULATE THE GENETICALLY MODIFIED PLANT FOR				
Pisum Sativum L.	YES	☑ NO		COMMERICALIZATION.	PEREGULATE THE GENETICALLY MODIFIED PLANT POR				
19. CHECK APPROPRIATE BOX FOR EACH ATTA (Follow instructions on reverse) a.	f the Variety	πε		20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) YES (If 'yes', answer items 21 and 22 below) NO (If 'no'', go to item 23) 6-4-6 11. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?					
c. X Exhibit C. Objective Description of Variet d. Exhibit D. Additional Description of the ' e. X Exhibit E. Statement of the Basis of the f f. Voucher Sample (2,500 viable untreated verification that tissue culture will be deprepository) g. Filing and Examination Fee (\$3,652), ma States* (Mail to the Plant Variety Protect	lariety (Optional) Owner's Ownersi seeds or, for tub loosited and maint de payable to "Tr	hip er propagated varieties, ained in an approved public		YES					
23. HAS THE VARIETY (INCLUDING ANY HARVES'	·			(If additional explanation is necessary, please use the space indicated on the reverse.)					
FROM THIS VARIETY BEEN SOLD, DISPOSED OTHER COUNTRIES? YES NO	OF, TRANSFERI	RED, OR USED IN THE U.S. OR		24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? YES NO					
IF YES, YOU MUST PROVIDE THE DATE OF F FOR EACH COUNTRY AND THE CIRCUMSTAN	RST SALE, DISFICES. (Please us	OSITION, TRANSFER, OR USE space indicated on reverse.)		IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)					
The owners declare that a viable sample of basic a tuber propagated variety a tissue culture will be	seed of the varie deposited in a p	ty has been furnished with applicate	ion and v	vill be reptenished upon request in ac	cordance with such regulations as may be applicable, or for				
a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.									
Owner(s) is (are) informed that false representation		•	alties.						
SIGNATURE OF OWNER		-	SIGNA	TURE OF OWNER					
NAME (Please print or type)	4		NAME /	NAME (Please print or type)					
Jerome Brotherton		1		ome Brotherton					
CAPACITY OR TITLE	DATE			ITY OR TITLE	DATE				
President 12/13/2004				dent	12/13/2004				

200500047

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432 filling fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvpo/pvpindex.htm

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and provide evidence that name has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, 10301 Baltimore Avenue, Suite 401 NAL Building, Beltsville, MD 20705. Telephone: (301) 504-5682 http://www.ams.usda.gov/lsg/seed.htm.

ITEM

- 19a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
 - (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 20. It "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

First sale of FEISTY was dated 12 February 2004, with shipment to Hermiston Foods in Hermiston, Oregon, USA.

24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patenti.)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Brailie, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Exhibit A

Origin and Breeding History of FEISTY

FEISTY was selected from the progeny of a cross of our breeding line FR774 and the line that was later named CASELODE. The parentage of FR774 was GREEN ARROW/ VANTAGE//VW8475. VW8475 was an afila breeding line developed by van Waveren Pflanzenzucht. The cross was made in the winter of 1989-1990 in the greenhouse of Brotherton Seed Co. Teddy L. Lund, Brotherton's plant breeder, did the crossing and all subsequent breeding work at Moses Lake, WA. The F1 was grown in the field the following summer and the F2 in the greenhouse in the fall of 1990. Seed from the F2 was harvested in bulk and planted in the field in the spring of 1991. Selections were made in that F3 population and pedigree selection followed through the F7 generation in 1995, growing each generation in the field at Moses Lake. Selection criteria included standability, pod size, pea color and flavor, general plant health, and reaction to Powdery Mildew. An F5 derived bulk was included in our yield trials in 1996 and 1997. The line exhibited excellent yield, quality, and standability in these trials. An F7-derived F8 progeny was selected and bulked in 1996. That stock was increased in subsequent years as the stock for the new variety, to be designated FR678, and tested in our trials beginning in 1998. Small-plot testing at other locations began in 1999. Large plot trials were conducted in customer fields in 2002 and 2003.

Seed of FEISTY was increased in the years 1997, 1998, 1999, 2001, 2002, and 2003; and in each case the fields were carefully inspected for characteristic rogues, mixtures, and detectable variants. In 1999 one plant of approximately 60,000 was found with normal leaves and blooming at the ninth node. This apparent mixture was removed and nothing similar was seem in subsequent generations despite careful scrutiny. Because no characteristic rogues, mixtures, or detectable variants have been found in three years representing, respectively, approximately 0.4 million, 1.2 million, and 7 million plants, the variety is deemed to be uniform and stable.

APPLICATION NO. 200500047, Pea, 'FEISTY'

EXHIBIT B. STATEMENT OF DISTINCTNESS

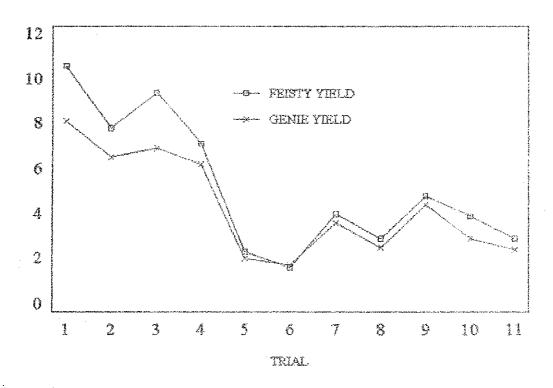
FEISTY is distinctly different from all other pea varieties. It is most similar to the variety GENIE and is distinguishable from GENIE in the following ways:

- 1. FEISTY has three pods per node, whereas GENIE has two pods per node.
- 2. FEISTY is higher yielding than GENIE as shown by results from comparisons of both varieties in 11trials.

TRIAL	YEAR SITE	REPS	ENTRY#	FEISTY YIELD (Tons/acre)	GENIE YIELD (Tons/acre)	
IRIAL	1996 MOSES LAKE	4	ST.7-9: 3		10.6	8.1
1	1997 MOSES LAKE	4	ST.7-11: 4		7.8	6.5
2	1997 MOSES LAKE	4	ST.7-8: 16		9.4	6.9
3 4	1999 MOSES LAKE	4	ST.7-12: 35		7.1	6.2
5		•	28:32		2.3	2.0
6			36:30		1.6	1.7
7	2003 MOSES LAKE	4	ST.7-14: 11		4.0	3.6
8		3	3:13		2.9	2.5
9	1	4	ST.6-23: 65		4.8	4.4
10		4	ST.7-42: 53	4	3.9	2.9
11	2006 MOSES LAKE	4	ST.7-41: 67		2.9	2.4

Measures of standardized skewness and standardized kurtosis for this data showed that the data statistics fell within the range expected for a normal distribution. A paired samples t-test (t = 2.412, p=0.006) showed that the yield of FEISTY is significantly higher than that of GENIE at 5% level of significance. These results are further graphically represented in Figure 1.

FIGI: YIELD(T/A) COMPARISONS BETWEEN FEISTY AND GENIE AT 11 TRIAL SITES



3. FEISTY is earlier to reach harvest maturity (100 tenderometer) than is GENIE as shown by results from comparisons of both varieties in 11 trials.

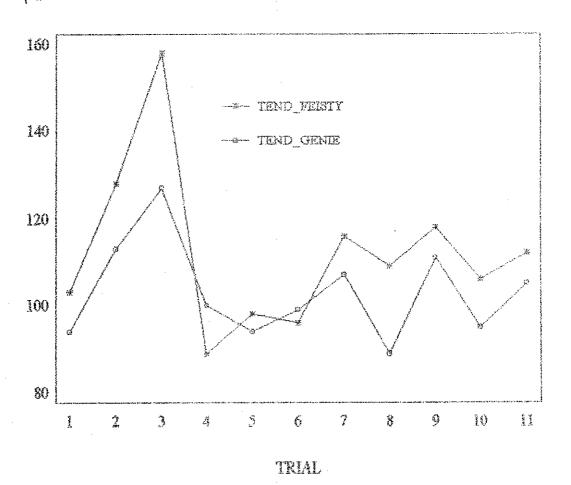
TRIAL	YEAR SITE	ENTRY#	REPS	TEND-FEISTY	TEND-GENIE
1	1996 MOSES LAKE	ST.7-9: 3	4	103	94
2	1997 MOSES LAKE	ST.7-11: 4	4	128	113
3	1998 MOSES LAKE	ST.7-8: 16	4	158	127
4	1999 MOSES LAKE	ST.7-12: 35	4	89	100
5	2000 OREGON STATE U	28:32	4	98	94
6	2001 OREGON STATE U	36:30	4	96	99
7	2003 MOSES LAKE	ST.7-14: 11	4	116	107
8	2004 U. OF Minn-Waseca	3:13	3	109	89
9	2005 MOSES LAKE	ST.6-23: 65	4	118	111
10	2005 MOSES LAKE	ST.7-42: 53	4	106	95
11	2006 MOSES LAKE	ST.7-41: 67	4	112	105

Analysis of data showed no violation of the properties of the normal distribution and a paired samples t-test (t = 2.700, p=0.0.022) showed that FEISTY reached harvest maturity earlier than GENIE at the 5% level of significance. These results are further graphically represented in Figure 2.

4. The mean plant height in FEISTY is more than that of GENIE although the results showed no significant differences between the two in 11 trials.

TRIAL	YEAR SITE	ENTRY#	REPS	HFEISTY HGE	NIE
1	1996 MOSES LAKE	ST.7-9: 3	4	25.5	21.5
2	1997 MOSES LAKE	ST.7-11: 4	4	24.3	23.0
3	1998 MOSES LAKE	ST.7-8: 16	4 .	29.1	30.0
4	1999 MOSES LAKE	ST.7-12: 35	4	24.7	20.3
- 5	2000 OREGON STATE U	28:32	4	20.0	22.0
6	2001 OREGON STATE U	36:30	4.	16.0	14.0
7	2003 MOSES LAKE	ST.7-14: 11	4	24.7	23.1
8	2004 U. OF Minn-Waseca	3:13	3	18.4	15.1
9	2005 MOSES LAKE	ST.6-23: 65	4	22.1	22.2
10	2005 MOSES LAKE	ST.7-42: 53	4	23.8	18.8
11	2006 MOSES LAKE	ST.7-41: 67	4	23.7	23.7

F162 : COMPARISONS OF TENDEROMETER VALUES FOR FEISTY AND GENIE WHEN GROWN AT 11 TRIAL - STTES



Form Approved OMB NO 0881-0055
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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U.S. DEPARTMENT OF AGRICULTURE **AGRICULTURAL MARKETING SERVICE** SCIENCE AND TECHNOLOGY **PLANT VARIETY PROTECTION OFFICE** BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY

Pea (Pisum sativum L.)									
NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME							
Brotherton Seed Co., Inc.	FR 678	FEISTY							
ADDRESS (Street and No. or RD No., City, State, Zip Code and Country) 451 S. Milwaukee Avenue		FOR OFFICIAL/USE ONLY							
PO Box 1136		PVPO NUMBER							
Moses Lake, WA 98837		200500047							
	: Place the appropriate number that describes the varietal ten the number is either 99 or less or 9 or less respectively								
	ta should be determined from varieties entered in the sam								
color standard may be used to determine plant colors		Please							
answer all questions for your variety; lack of respons	e may delay progress of your application.								
1. TYPE:									
1 = Garden 2 = Field	3 = Edible-podded 4 = Other (Specify)								
2. MATURITY:		· · · · · · · · · · · · · · · · · · ·							
Node Number of First Bloom:	No. of Days Processing	4 D Heat Units							
No. of Days Earlier Than	1 = Alaska 2 = Thomas Laxton WR 3	= Little Marvel							
Days Same As	4 = Wando 5 = Alderman WR 6	= Australian Winter							
05 No. of Days Later Than 3	7 = Other (Specify)	··········							
3. PLANT HEIGHT:									
074 cm High									
32 cm Shorter Than 2 Na	ame of Check Cultivar Thomas Laxton W	<u>R</u>							
·	ame as Check Cultivar								
OII cm Taller Than 4 Na	ame of Check Cultivar Wando								
4. VINE:									
	1 = Slim (Alasi Indeterminate 3 = Stockiness 2 = Medium (T 3 = Heavy (Alasi	homas Laxton WR)							
Branching: 1 = None (Alaska) 2 =	= 1-2 Branches (Little Marvel) 3 = More than 2 Br	anches (Dwarf Gray Sugar)							
Internodes: 1 = Straight	2 = Zig Zag Number of Nodes								
		8							

5 . I	EAFLE	ETS:														
	0	Color:		jht Green her (Spec		WR)	2 = Mediu	ım Gree		mas Laxto Blue Gree			B = Dark (B = Yellov	Green (Alde w Green	erman) 0 = Not Applicable	
	0	Wax	1 = No 4 = He		2 = Lig 0 = No	ht : Applicabi	3 = Medit le	ım		0] 1	I = Not Ma) = Not App		2 = Ma	rbled (Alaska)	
	0	Number	of Leaflet	Pairs:	1 = No	Paired	2 = On	e	3 = Tw	o 4	\$ = TI	hree or Mo	re	0 = Not	Applicable	
	I	Leaflet T	уре:	1 = Lea	fless	2 = Sem	i 3=	Normal								
6. 5	STIPUL	.ES:														
	2	1 = Lack	ing 2 = Pro	esent		1 = Not (Clasping	(2)	Claspin	q						
	2	1 = Not N	=	2 = Mar	bled		, ,	To	٦ .		ed w	ith Leaflets	s): 1	= Smaller	2 = Same	
] 020	(oonipu)	· · ·	mi countr		= Larger	0 = Not Applicable	
	0	Color (Co	ompared v	with Leafle	ets):	1 = Lighte	er 2	= Same	,	3 = Dark	ег	0 = Not	Applicab	le		
	3	Color:	1 = Lig	ht Green	2 = Me	dium Gree	en 3 = [Dark Gre	een	4 = Blue	Gree	en 5=	Yellow G	Green	0 = Not Applicable	
_		Color Ch	art Value;	137	<u>A</u>			_ Roya _ Muns	l Horticu ell Colo	ulture Soc r Chart	iety (Determine Colour Cha	art			
[3	Sipule Siz	że:	1 = Sma	:H	2 = Medi	um 3=	Large								
		Please P	rovide Co	mparitive	Varieties	(Check V	arieties) a	nd Stipu	ile Colo	r					•	
-			V	ariety (1)			Varie	ty (2)				Variety (3	3)			
Vari	ety Nan	ne:	Alde	rman												
Stipe	ıle Size):	Larg	e												
-	r Chart		137B										1			
7. F	LOWER	R COLOR:	:	П		Г			г	. 1						
L		Venation		∐ s	tandard	Ĺ.	∐ Win	g	L	Kee	j					
1 = 1	Vhite	2 = Green	nish 3	= Lavend	er 4	= Purple	5 ≃ Re	d 6:	= Other	(Specify)		······		······································		
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	2	Shape:		Straight			= Slightly C		3=(Curved						
		End:		ointed(Al	•		= Blunt (Ala	,								
L	= 1	Color:	1 = L 4 = C	ignt Gree Other (Spe	n (Alaska cify)	(WR) 2=	Medium (Green —	3 = Dai 5 = Blu		(Alde = Pu		7 = Ye	llow		
		Surface:	1 = S	mooth	:	2 = Rough	ı	2	Surface	e: 1 =	Shin	y 2 = Duil				
٤	5	Borne:	1 = Sing		2 = Dou		3 = Single	and Do	ouble	4 =	Sing	le, Double	& Triple	5 = Dou	ıble & Triple	
6 = Triple 7 = Other (Specify) 8 = Quad, Single, Double, Triple 9 = Quad																
<u>[(</u>	D 9 cm Length I 6 mm Width (Between Sutures) I 0 No. Seeds Per Pod															
9. SI	EEDS: ((95-100 Te	nderomet	ter)												
2] c	` olor: 1 =	= Light Gr	een 2	= Green		3 = Dark (Green	4 = 0	Other (Sp	ecifv))				
			= Yellow		= Brown		7 = Yellov			/					<u> </u>	
		1	2	·		4	5	6	7	8		Average	ı			
8	seive: 9	% O	20	<u> 51 []</u>	1 2	.8 4	131 [1	00	00	ן ני	4, 4				

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9.	SEEDS	S: (Dry-Mature)								E 123	
	4	Shape: 1 = F	Flattened 2	2 = Angular	3 ≃ Ovai	4 = Rounde	ed				
	3		Smooth 2 Vrinkled	2 = Dimpled		2	Surface	1 = Shiny	2 = Dull		
	1	Color Pattern:	1 = Monocolo	or 2 = 1	Nottled	3 = Strip	ed 4	= Dotted			
		Primary Color: Secondary Color:	5 = D 9 = R 13 =	Creamy White Dark Green Red Purple Yellow Green	2 = Cream 6 = Blue G 10 = Gray 14 = Tan	ireen 7 = 11	= Light Green = Yellow = Black = White	4 = Medium 8 = Brown 12 = Salmon 16 = Pink			
	1	Hilum Floor Color:	1 = Whit	te 2 = Tar	3 =	Black					
	1	Cotyledon Color:	1 = Gree	en 2 = Yel	low 3 =	Orange 4	t = Cream				
	22	Grams per 100 Seed	ls								
10.	DISE	ASE: (0 = Not Tested, 1	1 = Susceptib	ole, 2 = Resista	ınt, 3 = Mod	lerately Resis	stant. 4 = Mod	derately Susceptii	ble. 5 = Tolerai	nt)	
	2	Fusarium Wilt - Rac				T-1		ear Wilt) – Race 2			
	0	Ascochyta Blight				O Con	nmon Mosaic				
	0	Bacterial Blight				O Pea	Enation Mos	aic Virus			
		Downy Mildew				O Sea	dborne Mosa	ic Virus			
	3	Powdery Mildew	v			O Yell	low Bean Mos	saic Virus			
		Other (Specify)			_	5 Leaf	f Roll Virus				
		Other (Specify)			-	Oth	er (Specify) _				
11.	INSEC	T: (0 = Not Tested, 1	= Susceptible	e. 2 = Resistan	t. 3 = Mode	rately Resist	ant 4 = Mode	rately Suscentible	le 5 = Tolerani	r)	
7.7	0	Aphids		-, - , , , , , , , , , , , , , , , , ,	[er (Specify) _		e, 5 – Tolerain		

12. Additional informtion on any item above, or general comments that may aid in identification:

REPRODUCE LOCALLY. Include form number and edition date on all	reproductions.	ORM APPROVED - OMB No. 0581-0055						
U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE EXHIBIT E	Application is required in order to determine if a plant variety pro- certificate is to be issued (7 U.S.C. 2421). The information is held							
STATEMENT OF THE BASIS OF OWNERSHIP	confidential until the certificate is issued (7 U.S.C. 2426).							
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME						
Brotherton Seed Co., Inc.	FR 678	FEISTY						
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)	City, State, and ZIP, and Country) 5. TELEPHONE (Include area code) 6. FAX (Include area code)							
451 S. Milwaukee Avenue PO Box 1136								
Moses Lake, WA 98837	7. PVPO NUMBER							
	\$	00500047						
8. Does the applicant own all rights to the variety? Mark an "X" in the 9. Is the applicant (individual or company) a U.S. national or a U.S. by								
10. Is the applicant the original owner?	NO If no, please answer <u>one</u>	of the following:						
a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. Nations NO If no, give name of count							
b. If the original rights to variety were owned by a company(ies), YES 11. Additional explanation on ownership (Trace ownership from origin	NO If no, give name of countr	y						
11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed): FEISTY was bred by Teddy L. Lund, an employee of Brotherton Seed Co., Inc. By agreement with Brotherton Seed Co., Inc., all rights to varieties bred by employees are assigned to Brotherton Seed Co., Inc. with no rights retained by the employees.								
PLEASE NOTE:		 						
Plant variety protection can only be afforded to the owners (not license	ees) who meet the following criteria:							
If the rights to the variety are owned by the original breeder, that penational of a country which affords similar protection to nationals of	erson must be a U.S. national, national of the U.S. for the same genus and specie	of a UPOV member country, or es.						
If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.								
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.								
The original breeder/owner may be the individual or company who dire Act for definitions.	ected the final breeding. See Section 4	1(a)(2) of the Plant Variety Protection						
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, a control number. The valid OMB control number for this information collection is 0551-0055, including the time for reviewing the instructions, searching existing data sources, gathering as	The time required to complete this information collected and maintaining the data needed, and completing and the completing and	ion is estimated to average 0.1 hour per response, reviewing the collection of information.						
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